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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,304	06/20/2003	Jeremy R. Choate	1513/22	7948
28441 7590 08/05/2009 BRINKS HOFER GILSON & LIONE/UTAH UTAH OFFICE 405 South Main Street Suite 800 SALT LAKE CITY, UT 84111-3400				
EXAMINER KING, BRADLEY T				
ART UNIT 3657		PAPER NUMBER		
MAIL DATE 08/05/2009		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/601,304

Applicant(s)

CHOATE ET AL.

Examiner

Bradley T. King

Art Unit

3657

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 28-34 and 37-40 is/are pending in the application.
- 4a) Of the above claim(s) 29, 30, 32 and 34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 28, 31, 33, 37, 39 and 40 is/are rejected.
- 7) ☒ Claim(s) 38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 28, 31, 33, 37 and 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilmore (US# 3027911) in view of "ALTERING WOUND SPRINGS" 1961.

Gilmore provides a relief valve device having an inlet 12, a disk member 38 or 80 closable on the inlet and a mechanism biasing the disk member on the inlet, a body, and an outlet 14, wherein the disk member and the inlet are configured to provide a huddling chamber 88, where a spring 48 is used. Please note that when using or designing the valve in various applications, it is be desirable to have a valve with a different spring rate for varying applications. The article teaches a method of measuring a spring rate and then machining an outer diameter until the spring rate is within specific tolerances (see K ratios, also last paragraph) to ensure proper performance in particular applications. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified provided the spring of Gilmore according to the procedures taught by the article merely to provide a spring which will operate to the designed pressure, within proper pressure tolerances and further to ensure reliability.

Regarding claims 39-40, Gilmore further lacks the explicit disclosure of the blow down values. It further would have been obvious to one of ordinary skill in the art at the time the invention was made to select the appropriate blow-down value through routine design or experimentation to give optimum performance for a given application.

Allowable Subject Matter

Claim 38 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 5/11/2009 have been fully considered but they are not persuasive. It is maintained that the rejections are proper. It would have been obvious to one of ordinary skill in the art at the time of invention to apply the known technique of measuring and machining springs to provide a desired spring rate within a desired tolerance, as evidenced by the cited article, to the spring of Gilmore as it would yield the predictable results of an increased tolerance to the valve and provide predictable performance. It is further maintained that one of ordinary skill in the art appreciates the effects of tolerance on the precision of the device and that one would be motivated to improve tolerances as dictated by the desired application. The fact that Gilmore provides an adjustment feature would not preclude one from trying to improve the overall accuracy of the device. Also note MPEP 2143.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley T. King whose telephone number is (571) 272-7117. The examiner can normally be reached on 11:00-7:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on (571) 272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bradley T King/
Primary Examiner, Art Unit 3657

BTK